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SOURCE Newspapers as indicated.

NEW MACHINES FOR USSR TEXTILE INDUSTRY

MACHINES FOR SYNTHETIC FIBERS -- Leningradskaya Pravda, 11 Apr 53

In the Fifth Five-Year Plan, textile enterprises are being built in Kamyshin, Engel's, Barnaul, Krasnodar, Kherson, and Stalinabad. These enterprises will be the largest textile mills in the world. For example, the combine in Kamyshin will process approximately one million meters of cotton cloth per day.

In the Fifth Five-Year Plan, the need will increase considerably for machines for processing synthetic fibers made of inorganic raw materials. These fibers are important in the manufacture not only of consumer goods but also of technical items. By the end of 1955, the production capacity of this branch of the textile industry will be 4.7 times that of 1950, and nearly 11 times that of 1940.

An experimental machine for a synthetic fiber, "khlurin," is being manufactured at the Leningrad Plant imeni Karl Marx. This fiber, which is similar to capron, will not break down in acid or alkali and is absolutely stable in water. For this reason, fabrics made of it are ideally suited for clothing for workers in the production of chemicals, for filters in the chemical industry, and for fishing equipment.

The task of obtaining maximum automatization in the production of textile fibers requires the incorporation of a number of separate operations into one machine, or the combining of separate machines into one aggregate representing a continuous, constant-flow line where all operations are automatic, beginning with the manufacture of the fiber and ending with its packing. This requirement brings with it a relative increase in the dimensions of new machines. For example, a spinning machine for capron is 22 meters long, about 4 meters wide, and 9.5 meters high. It occupies three floors. There are more than 150,000 parts in this machine. The aggregate for processing short staple fiber includes more than 25 machines, extends more than 100 meters in length, and contains more than 120 electric motors.

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In developing this complex equipment, the plant is receiving aid from the Scientific Research Plastics Institute, Leningrad, the Komsomol'skaya Pravda Plant, and the Leningrad Polytechnical Institute imeni M. I. Kalinin. This assistance is enabling the workers at the plant to replace scarce materials with those available and to perfect new nonmetallic materials which are acid- and alkali-resistant.

For example, Danilov, designer, has changed the design of one of the main units, the spinning head of the machine for "khlurin" fiber. As a result, a considerable quantity of copper and stainless steel have been saved and the labor required in the manufacture of the unit has been decreased.

On the other hand, the work of the entire enterprise has been hampered by the multitude of machine types it must produce, as ordered by Glavlegmash /Main Administration of Light Machine Building?/. Although the ministry has specified that the plant must specialize in the manufacture of spinning machines for synthetic fibers and for flax, Glavlegmash is not abiding by this decision. Extra assignments include the manufacture of looms for technical purposes, machines for covering cables, etc. None of these items has any connection with the specialization at the plant. -- S. Paramonov, Deputy Chief Designer, Leningrad Plant imeni Karl Marx

Moscow, Moskovskaya Pravda, 19 May 53

Five machines of the 25-machine aggregate being produced at the Leningrad Plant imeni Karl Marx have been built.

Many of the parts for the spinning machine have been made of plastic, which has reduced the weight of the machine by 1.5 tons.

With the aid of scientists of the Polytechnical Institute imeni M. I. Kalinin, a section for precision casting has been set up at the plant. The application of the new method has made it possible to decrease the consumption of metal to one third, and labor in machining operations by 70 percent; the cost of manufacturing parts has been cut in half.

In 1953, the plant has perfected and produced eight new types of machines for the textile industry.

NEW WEFT KNITTING MACHINE -- Moscow, Izvestiya, 28 Mar 53

The Moscow Presnenskiy Machine Building Plant is considered a sort of plant laboratory. It puts out exceptionally diversified products. More than 50 new machines for the textile industry alone have been perfected here. The JV weft knitting machine (utochnovyal'naya mashina) for processing tulle is now being manufactured. Leningrad designers who worked on its development solved a number of complex technical problems. The UV is a most modern machine. It is exceptional for its high productivity, compactness, and convenience in operation.

Very high precision work is required of those who are engaged in the manufacture of the new textile machine. The new machine is composed of nearly 18,000 parts, which range in size from 2 meters down to 1.5 millimeters. The processing of certain parts requires up to 40 operations. The milling of splines and the assembly of the machine require extreme precision on the part of the workers. With a deviation of even .01 millimeter in a spline, the machine will not operate.

The first weft knitting machines which were built in Leningrad were experimental models. They had many shortcomings in the early stages. In the new model, however, these shortcomings have been overcome and the quality of the machines has been improved considerably.

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The new textile machine is still at the plant shop but it is ready for dispatch. It takes only one worker to operate it. His task consists of loading the machine with yarn-filled bobbins and pressing a button to put the machine in operation. The UV can operate for 24 hours without stopping, during which time it can knit 540 meters of tulle. The knitting is done by 5,000 needles and thread guides. The machine can be converted from one pattern to another at any time. The selection of patterns is unlimited.

Another special feature of the UV is that if even one of the 1,082 threads should break, an electrical control quickly stops the machine and indicates the location of breakage.

To improve their own skills, 57 designers and technologists have completed engineering and technical courses at the plant, and 182 Stakhanovites have taken special courses.

Having mastered the production of the welt knitting machine for processing tulle, the Presnenskiy Plant must now manufacture machines for processing velvet and other textile products.

NEW HYDRAULIC AUTOMATIC MACHINE CONVERTS COTTON YARN TO SILKEN THREAD -- Moscow, Trud, 9 Apr 53

On 8 April, the Tashkent Machinery Plant submitted for testing the first two new machines for polishing leather. These machines will make it possible to double labor productivity.

Of special interest is a hydraulic automatic machine which converts cotton yarn into silken thread (shelkovaya nit'). All personnel are now working on the manufacture of this machine. This complex machine will be made up of 22,000 parts.

PERFECT NEW TEXTILE MACHINE -- Tashkent, Pravda Vostoka, 28 Apr 53

The Tashkent Textile Machine Building Plant must master the series production of seven new modern machines for the textile industry during the third year of the Fifth Five-Year Plan. One of these machines, the R-260 roving machine, which is exceptional for its high productivity, already has been perfected at the plant.

EQUIP SHOP FOR ELECTROLYTIC POLISHING OF SPINNING-FRAME PARTS -- Leningradskaya Pravda, 12 May 53

A workshop at the Leningrad Rabochiy Spinning and Weaving Mill has been equipped for mass electrolytic polishing of spinning frame parts and of rings in particular.

The traveler goes around the ring up to 10,000-11,000 times per minute or 85 kilometers per hour. Under such conditions, the rings must have an exceptionally smooth surface; otherwise thread breakage will increase and the flying-off of the traveler will occur more frequently.

The mirror-like surface which electrolytic polishing will impart to the rings will effect greater productivity and savings.

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NEW MERCERIZING MACHINE DOUBLES OUTPUT OF SATIN -- Tallin, Sovetskaya Estoniya,
12 May 53

A group of specialists and workers under the supervision of V. I. Shevchenko, engineer, head of the finishing mill of the Karabanovo Textile Combine, has designed a new mercerizing machine for the alkaline processing of satin.

An old machine of a similar type processed only one width (polotno), whereas the new machine processes two widths of cloth simultaneously. Personnel at the finishing mill can now produce twice as much satin as formerly. The new machine is simpler in design and occupies much less production area.

MAKE PREPARATIONS FOR SERIES PRODUCTION OF NEW LOOMS -- Tbilisi, Zarya Vostoka,
21 Mar 53

The first models of high-speed looms designed by a group of scientific workers at the Central Scientific Research Silk Institute and produced at the Tbilisi Machine Building Plant imeni 26 Komissarov have undergone successful experimental testing at Soviet silk weaving mills.

The plant is now preparing for series production of these looms. Parts are being cast, and attachments and separate units are being manufactured. It has been resolved that series production of the new looms will begin in the first half of 1953.

NEW INSTRUMENT DETERMINES DENSITY OF CLOTH -- Kishinev, Sovetskaya Moldaviya,
11 Apr 53

Until recently, the checking of cloth density was done by hand, which was extremely time consuming.

To facilitate this work, the Ivanovo Scientific Research Institute of the Cotton Industry designed and manufactured an instrument which automatically determines the density of cloth in just a few seconds.

BEGIN SERIES PRODUCTION OF NEW SEWING MACHINES -- Minsk, Sovetskaya Belorussiya,
15 Apr 53

The Orsha Sewing Machine Plant has begun series production of new Class A-1 sewing machines.

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